From: "Hale, Elly" <Hale.Elly@epa.gov>

To: Jing.Liu@ecy.wa.gov

CC: "Hoffman, Erika" <Hoffman.Erika@epa.gov>

Date: 9/30/2021 9:37:16 AM

Subject: FW: Dioxin data near Rhone Poulenc - PCP questions part 3

Attachments: Fig 3-17 PCP GW PW.pdf

Fig 3-9 PCP soil.pdf



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From: Knittel, Janette < Knittel. Janette@epa.gov> Sent: Thursday, September 30, 2021 9:26 AM

To: Hale, Elly < Hale. Elly@epa.gov>

Subject: RE: Dioxin data near Rhone Poulenc - PCP questions part 3

OK, this is the last of what I have to offer for now unless you have more questions. Attached are a couple of figures from the Agency Draft CMS Work Plan 2014 (never approved/finalized). Keep in mind that these figures are outdated, because of time and particularly because the PRGs have been updated (not sure how off they are but happy to give you that if interested).

-Janette

From: Knittel, Janette

Sent: Thursday, September 30, 2021 9:13 AM

To: Hale, Elly < Hale. Elly@epa.gov>

Subject: RE: Dioxin data near Rhone Poulenc - PCP questions part 2

See below for an update about how pentachlorophenol was used, and duration. Next up is historical concentrations, stay tuned.

From: Knittel, Janette

Sent: Thursday, September 30, 2021 8:49 AM

To: Hale, Elly < Hale. Elly@epa.gov>

Subject: RE: Dioxin data near Rhone Poulenc - PCP questions

Elly, I'll try to answer your questions about pentachlorophenol at Rhone-Poulenc:

Has the sampling done on site included pentachlorophenol analyses?

Yes, PCP and SVOCs in general have been investigated since the beginning (1980s). Most recent sampling was GW in May 2021 to fill some data gaps. See attached Round 91 report – Table 6 (pdf p25) shows SVOC results, and Table 8 (pdf p27) shows dioxin/furan results. These are not on a figure yet but sampling locations are Figure 1 (pdf p30). / will find some historical data and get back to you in a separate email.

Do you know where on the site the penta was used, and for what? And do you know if it was manufactured or stored there?

I believe it was just stored for use in operations. I don't know of any evidence that it was manufactured

there. I will have to dig more into the history to find how specifically it was used in operations, and get back to you in a separate email. Historical operations related to pentachlorophenol from a 2014 document – "Industrial use of the site began in the 1930s. From the late 1930s until 1952, the site was used to formulate glue for use in plywood manufacturing. Paints and resins were manufactured on site, and the wood preservative pentachlorophenol was stored and used. Dry glue and resin production ceased in about 1969. Hardener and extender production stopped in 1970...Vanillin production began in 1952 and continued through 1991, when the site was permanently closed."

## Any duration information?

Not that I'm aware of. Best guess would be that PCP would have been stored and used between late 1930s and 1952.

## -Janette

From: Hale, Elly <Hale.Elly@epa.gov>

Sent: Wednesday, September 29, 2021 11:54 PM To: Knittel, Janette < Knittel. Janette@epa.gov> Subject: Dioxin data near Rhone Poulenc

Hi, Janette -

We're digesting the new Phase 1 Tier 1 data and starting to make decisions about which Tier 2 archived samples to analyze, and for which analytes.

I wish I'd had time to go over the data with you before our meeting tomorrow (at 9), but the short version is that there continue to be pretty high sediments dioxins in spotty locations on the west side of the waterway near RP, Paccar, and Boeing I/T sites.

Jing Liu of Ecology noted that there's a study (1990 RCRA Facility Assessment?) related to Rhone Poulenc that references pentachlorophenol. ["pentachlorophenol handling area" of site, as identified in the 1990 RCRA Facility Assessment and closer to shoreline."] Has the sampling done on site included pentachlorophenol analyses? Do you know where on the site the penta was used, and for what? Any duration information? And do you know if it was manufactured or stored there?

I'm happy to go over what we are seeing in the Tier 1 results – unfortunately the spreadsheet with the dioxin dataset is all we have for now. It came in later than the data for other analytes and the results haven't been added to the maps and tables. Our action levels are 25 pptrillion (for most intervals) and 28 ppt for the 0-45 cm intertidal interval. We're finding numbers above the action level and up to 180 pptr, primarily in samples near RP (where most of our dioxin samples were collected based on Phase 1 results). There were plenty from the RP area below the action levels, too. In areas to the north of RP, we had one sample as high as 104 pptr.

Look for a spot on my calendar if you want to set up a preview of the results Friday or next week. I expect we'll get an updated map – but come to think of it, they haven't said they're planning to make one, so I'll ask tomorrow.



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